Contents of Volume 145, No. 1

PAGE

Policy of the Journal and Instructions to Authors 1

Recommendations for the nomenclature of human immunoglobins 21

Proteins

A radio-ligand receptor assay for the long-acting thyroid stimulator. Inhibition by the long-acting thyroid stimulator of the binding of radioiodinated thyroid-stimulating hormone to human thyroid membranes.
By S. Q. Mehdi & S. S. Nussey 105

The nature of the collagen cross-links in bone in the chronic uraemic state (*Short Communication*).
By J. E. Russell, L. V. Avioli & G. Mechanic 119

Equisetum (horsetail) ferredoxin: characterization of the active centre and position of the four cysteines in this 2Fe–2S protein (*Short Communication*).
By H. Kagamiyama, K. K. Rao, D. O. Hall, R. Cammack & H. Matsubara 121

Nucleic Acids

Isolation and identification of products from alkylation of nucleic acids: ethyl- and isopropyl-purines.
By P. D. Lawley, D. J. Orr & M. Jarman 73

Molecular mechanisms in alkylation mutagenesis. Induced reversion of bacteriophage T4*r*II AP72 by ethyl methanesulphonate in relation to extent and mode of ethylation of purines in bacteriophage deoxyribonucleic acid.
By P. D. Lawley & C. N. Martin 85

PAGE

Lipids

Radio-enzymic assay of oxo steroids by their reduction with the tritiated form of reduced nicotinamide–adenine dinucleotide.
By J. K. Norymberski, N. Stoddart & J. B. Wolstenholme 47

Carbohydrates

Macromolecular properties and end-group analysis of heparin isolated from bovine liver capsule.
By L. Jansson, S. Ögren & U. Lindahl 53

Enzymology

Purification and properties of rat brain pyruvate carboxylase.
By D. E. Mahan, I. K. Mushahwar & R. E. Koeppe 25

Preparation of the lactate oxidase apoenzyme and studies on the binding of flavin mononucleotide to the apoenzyme.
By Y. S. Choong, M. G. Shepherd & P. A. Sullivan 37

Activation and inhibition of rabbit muscle pyruvate kinase by transition-metal ions.
By S. Ainsworth & N. Macfarlane 63

The steady-state kinetics of peroxidase with 2,2′-azino-di-(3-ethyl-benzthiazoline-6-sulphonic acid) as chromogen.
By R. E. Childs & W. G. Bardsley 93

Purification of normal human urinary *N*-acetyl-β-hexosaminidase A by affinity chromatography.
By D. K. Banerjee & D. Basu 113

The binding of 8-anilinonaphthalene-1-sulphonate to cytoplasmic aspartate aminotransferase from pig heart (*Short Communication*).
By H. E. Harris & P. M. Bayley 125

Contents of Volume 145, No. 2

PAGE

Proteins

Characterization of a plasmin-digest fragment of rabbit immunoglobulin gamma that binds antigen and complement.
By M. Colomb & R. R. Porter 177

Differences in the protein fluorescence of the two iron(III)-binding sites of ovotransferrin.
By R. W. Evans & J. J. Holbrook 201

Specific cyanylation and cleavage at cysteine-104 of human haemoglobin α-chain. A novel approach to the problem of the α-chain tryptic core in the study of haemoglobin variants by 'fingerprinting' methods.
By R. Casey & A. Lang 251

A comparison of glycopeptides from the transferrins of several species.
By I. Graham & J. Williams 263

The electrophoretic mobilities of 5-dimethylaminonaphthalene-1-sulphonyl-glycopeptides and their relation to molecular weight.
By R. V. Wenn 281

Isolation and chemical characterization of collagen in bovine pulmonary tissues.
By G. Francis & J. Thomas 287

Isolation and characterization of acidic structural glycoproteins in pulmonary tissues.
By G. Francis & J. Thomas 299

Studies on the subunit structure of 4-deoxy-5-oxoglucarate hydro-lyase (decarboxylating) from *Pseudomonas acidovorans*.
By R. Jeffcoat 305

The amino acid sequence of rabbit muscle triose phosphate isomerase.
By P. H. Corran & S. G. Waley 335

The amino acid sequence of ribonuclease U_2 from *Ustilago sphaerogena*.
By S. Sato & T. Uchida 353

The sialic acid content and isoelectric point of human kininogen (*Short Communication*).
By J. C. Londesborough & U. Hamberg 401

Nucleic Acids

Synthesis of cyclohexylpuromycin and its reaction with *N*-acetylphenylalanyl-transfer ribonucleic acid on rat liver ribosomes.
By M. Ariatti & A. O. Hawtrey 169

PAGE

Lipids

The role of a 5α-hydroxylated intermediate in the formation of the 5,6-double bond in cholesterol biosynthesis.
By K. Alexander & M. Akhtar 349

Carbohydrates

The synthesis of hyaluronic acid by sheep and rabbit articular cartilage *in vitro*.
By G. C. Gillard, B. Caterson & D. A. Lowther 209

The co-polymeric structure of pig skin dermatan sulphate. Distribution of L-iduronic acid sulphate residues in co-polymeric chains.
By L. Cöster, A. Malmström, I. Sjöberg & L.-Å. Fransson 379

Small Molecules

Separation by thin-layer chromatography and structure elucidation of bilirubin conjugates isolated from dog bile.
By K. P. M. Heirwegh, J. Fevery, R. Michiels, G. P. van Hees & F. Compernolle 189

Enzymology

Interactions of uridine diphosphate glucose dehydrogenase with the inhibitor uridine diphosphate xylose.
By P. A. Gainey & C. F. Phelps 129

Properties of catechol *O*-methyltransferases from brain and liver of rat and human.
By H. L. White & J. C. Wu 135

The nature of inactivation of rat muscle 5′-adenylate aminohydrolase by fluorodinitrobenzene.
By A. Raggi, C. Bergamini and G. Ronca 145

Molecular characteristics of chicken kidney arginase.
By S. Traniello, R. Barsacchi, E. Magri & E. Grazi 153

Mechanistic, inhibitory and stereochemical studies on cytoplasmic and mitochondrial serine transhydroxymethylases.
By M. Akhtar, H. A. El-Obeid & P. M. Jordan 159

GENERAL BOOKBINDING CO.
75 256AA 2 013 1 C 2798
QUALITY CONTROL MARK

PAGE

Deoxyribonucleic acid polymerases of BHK-21/C13 cells. Partial purification and characterization of the enzymes.
By R. K. Craig & H. M. Keir 215

Deoxyribonucleic acid polymerases of BHK-21/C13 cells. Heterogeneity, molecular asymmetry and subcellular distribution of the enzymes.
By R. K. Craig & H. M. Keir 225

Deoxyribonucleic acid polymerases of BHK-21/C13 cells. Relationship to the physiological state of the cells, and to synchronous induction of synthesis of deoxyribonucleic acid.
By R. K. Craig, P. A. Costello & H. M. Keir 233

Multiple protein kinases from human lymphocytes. Identification of enzymes phosphorylating exogenous histone and casein.
By B. E. Kemp, M. Froscio, A. Rogers & A. W. Murray 241

Rat liver mitochondrial monoamine oxidase. A change in the reaction mechanism on solubilization.
By M. D. Houslay & K. F. Tipton 311

The purification of fructose 1,6-diphosphatase from ox liver and its activation by ethylenediaminetetra-acetate.
By H. G. Nimmo & K. F. Tipton 323

The subunit structure of β-glucosidase from *Botryodiplodia theobromae* Pat.
By G. M. Umezurike 361

PAGE

Active-site titration of pig plasma benzylamine oxidase with phenylhydrazine.
By F. Buffoni & G. Ignesti 369

Oxidation of polyamines by diamine oxidase from human seminal plasma.
By E. Hölttä, P. Pulkkinen, K. Elfving & J. Jänne 373

Nitrogenase of *Klebsiella pneumoniae*. A stopped-flow study of magnesium–adenosine triphosphate-induced electron transfer between the component proteins.
By R. N. F. Thorneley 391

The kinetics of degradation of chondroitin sulphates and hyaluronic acid by chondroitinase from *Proteus vulgaris* (*Short Communication*).
By C. F. Thurston, T. E. Hardingham & H. Muir 397

Decay of oxyperoxidase and oxygen radicals: a possible role for myeloperoxidase (*Short Communication*).
By G. Rotilio, G. Falcioni, E. Fioretti & M. Brunori 405

Comparison of β-lactamase II from *Bacillus cereus* 569/H/9 with a β-lactamase from *Bacillus cereus* 5/B/6 (*Short Communication*).
By R. B. Davies, E. P. Abraham, J. Fleming & M. R. Pollock 409

Hydrolysis of dipeptide 2-naphthylamides by human muscle enzymes (*Short Communication*).
By A. F. Bury & R. J. Pennington 413

Contents of Volume 145, No.3

PAGE

Proteins

Electron transfer between azurin and cytochrome *c*-551 from *Pseudomonas aeruginosa*.
By M. T. Wilson, C. Greenwood, M. Brunori & E. Antonini 449

Studies on the high-sulphur proteins of reduced mohair. The isolation and amino acid sequence of protein SCMKB-M1.2.
By D. Parris & L. S. Swart 459

Purification and some characteristics of the coagulation factor IX from human plasma.
By B. Østerud & R. Flengsrud 469

PAGE

Microtubule protein synthesis during oogenesis and early embryogenesis in *Xenopus laevis*.
By R. Q. W. Pestell 527

Chemical and physical characteristics of a phosphoprotein from human parotid saliva.
By A. Bennick 557

Immunoassay of serum polypeptide hormones by using ^{125}I-labelled anti-(immunoglobulin G) antibodies.
By P. Beck & C. N. Hales 607

PAGE

Nucleic Acids

Phosphotriesters in rat liver deoxyribonucleic acid after the administration of the carcinogen *NN*-dimethylnitrosamine *in vivo*.
By P. J. O'Connor, G. P. Margison & A. W. Craig 475

Hybridization properties of nucleolar ribonucleic acid.
By C. S. Peres & R. R. Brentani 617

Lipids

Sensitive analysis of ethanolamine- and serine-containing phosphoglycerides by high-performance liquid chromatography.
By F. B. Jungalwala, R. J. Turel, J. E. Evans & R. H. McCluer 517

Carbohydrates

Fractionation of proteoglycans from bovine corneal stroma.
By I. Axelsson & D. Heinegård 491

The proteoglycans of the human intervertebral disc.
By J. H. Emes & R. H. Pearce 549

Enzymology

Evidence for two asymmetric conformational states in the human erythrocyte sugar-transport system.
By J. E. G. Barnett, G. D. Holman, R. A. Chalkley & K. A. Munday 417

Electrostatic effects on the kinetics of bound enzymes.
By J.-M. Engasser & C. Horvath 431

Protein kinase and phosphatases from human polymorphonuclear leucocytes.
By P.-K. Tsung, T. Sakamoto & G. Weissmann 437

The altered specificity of cortisone reductase with certain *retro*androstan-3-one substrates.
By W. Gibb, J. Jeffery, D. N. Kirk & H. Mahdi 483

PAGE

Fluorine as a hydroxy analogue. Stereospecific phosphorylation of 2-deoxy-2-fluoroglycerol by glycerol kinase.
By P. A. Briley, R. Eisenthal & R. Harrison 501

Deoxyribonucleic acid-dependent ribonucleic acid polymerases from normal and polyoma-transformed BHK-21/C13 cells.
By R. J. Cooper & H. M. Keir 509

Evolutionary variation between a monomer and a dimer arginine kinase. Purification of the enzyme from *Holothuria forskali* and a comparison of some properties with that from *Homarus vulgaris*.
By E. O. Anosike, B. H. Moreland & D. C. Watts 533

Acetyl-coenzyme A carboxylase. Role of the prosthetic group in enzyme polymerization.
By A. D. Landman & K. Dakshinamurti 543

Purification and properties of the pyruvate kinase of sturgeon muscle.
By R. F. Randall & P. J. Anderson 569

Comparison of the subunit and primary structures of the pyruvate kinases from rabbit and sturgeon muscles.
By P. J. Anderson & R. F. Randall 579

Evidence for a histidine and a cysteine residue in the substrate-binding site of yeast alcohol dehydrogenase.
By V. Laskovac & D. Pavkov-Peričin 581

Metal-dependent proteinase of the lens. Assay, purification and properties of the bovine enzyme.
By A. M. J. Blow, R. van Heyningen & A. J. Barrett 591

Intermolecular Organization

Interaction of cartilage proteoglycans with collagen-substituted agarose gels.
By R. A. Greenwald, C. E. Schwartz & J. O. Cantor 601

Index 623